

REMARKS

Claims 13, 15 and 24-27 are pending. Claims 1-12, 14, 16-23 and 28-31 are canceled.
Claims 13, 15, 24, 25 and 27 are amended.

The claims have been amended to change the language of “having SEQ ID NO:1 or SEQ ID NO:2” to clearly indicate that the peptide consists of SEQ ID NO:1 or 2. Additionally the claims have been amended to indicate that the antigens consisting of the small epitopes of SEQ ID NO:1 and 2 are useful to increase the concentration of antibodies to aglycoprotein 10B antigenic epitopes.

Applicant requests that the Examiner enter the present claim amendments as no new search is necessitated and earnestly believes the presently amended claims are in condition for allowance.

Rejection of claim 13- Double Patenting Over 09/854,568

The Examiner has maintained the double patenting rejection over claim 6 of copending application 09/854,568. Applicant invites the Examiner to determine whether in light of the current amendments whether the rejection is still valid. If the Examiner deems the double patenting rejection valid, and if the Examiner determines that the present claims are allowable and if the 09/854,568 has issued into a patent, Applicant will file a terminal disclaimer.

Rejection of claims 12-14 - Double Patenting Over US 4,298,590

The Examiner has maintained the double patenting rejection over US 4,298,590. Applicant submits that the present claim amendments render this rejection moot. Specifically the claims have been amended to recite (through the use of “consisting of”) only the epitope of SEQ ID NO:1 and 2 or to purified monoclonal antibodies that bind specifically thereto. Thus, in light of the claim amendments, applicant repeats assertions made in the prior response, namely that without using the teachings of the present application and thus use of impermissible hindsight

would one skilled in the art have known that SEQ ID NO:1 or 2 might be antigenic on their own and are epitopes of the malignin protein.

Rejection of Claim 24—Double Patenting Over US 4,298,590

The Examiner has maintained the rejection of claim 24 over claims 12-14 of US 4,298,590 in view of US 4,041,146 for double. Applicant submits that the present claim amendments render this rejection moot. As discussed above, the claims have been amended to recite (through the use of “consisting of”) only the epitope of SEQ Id NO:1 and 2 or to purified monoclonal antibodies that bind specifically thereto. Thus, in light of the claim amendments, applicant repeats assertions made in the prior response, namely that without using the teachings of the present application and thus use of impermissible hindsight would one skilled in the art have known that SEQ NO:1 or 2 might be antigenic on their own and are epitopes of the malignin protein.

Applicant respectfully submits claims 12-14 of US 4,298,590 do not teach or suggest antibodies that bind specifically to SEQ ID NO:1 or SEQ ID NO:2 as claimed. Applicant further submits the claims do not teach or suggest particular epitopes to the claimed anti-malignin antibody and provide no teaching or suggestion that SEQ ID NO:1 or SEQ ID NO:2 are antigenic. Applicant additionally submits that SEQ ID NO:1 and SEQ ID NO:2 were not known in the art before the priority date of the above-captioned application. As such, one of skill in the art would not find it obvious to even make an antibody to SEQ ID NO:1 or SEQ ID NO:2 and would not find it obvious to use such antibodies to determine the concentration of aglycoprotein 10B antigenic epitopes in the blood of a patient as claimed in claim 24. Because claim 24 would not have been obvious to one of skill in the art over claims 12-14 of US 4,298,590 in view of US 4,041,146, Applicant respectfully requests the Examiner withdraw the rejection of claim 24 for double patenting.

Rejection of Claim 13 —Double Patenting Over US 4,486,538

The Examiner has maintained the rejection of claim 13 over claims 7-11, 20 and 21 of US 4,486,538 for double patenting because “claims 7-11, 20 and 21 of the ’538 patent are

directed to a composition comprising a mixture of monoclonal antimalignin antibodies, i.e., antimalignin antibody-fast and slow with additional inherent limitations” and the antibodies of claims 7-11, 20 and 21 of the ’538 patent would “specifically recognize a peptide having the amino acid sequence of SEQ ID NO:2.” Office Action at 6.

Applicant respectfully traverses the Examiner’s rejection of claim 13. As discussed above, the claims have been amended to recite (through the use of “consisting of”) only the epitope of SEQ ID NO:1 and 2 or to purified monoclonal antibodies that bind specifically thereto. Thus, in light of the claim amendments, applicant repeats assertions made in the prior response, namely that without using the teachings of the present application and thus use of impermissible hindsight would one skilled in the art have known that SEQ NO:1 or 2 might be antigenic on their own and are epitopes of the malignin protein.

As similarly discussed above with respect to US 4,298,590, the asserted claims of US 4,486,538 do not contain a limitation directing the claims to a peptide consisting of SEQ ID NO:2. Additionally, US 4,486,538 does not identify or disclose SEQ ID NO:2 as an epitope on the malignin protein.

Applicant respectfully submits the Examiner is incorrect to suggest the antibody of claims 7-11, 20 and 21 “would specifically recognize a peptide having the amino acid sequence of SEQ ID NO:2.” There is no teaching or suggestion in US 4,486,538 that the antibodies described therein bind SEQ ID NO:2. As such, the asserted claims of US 4,486,538 could not be used to render claim 13 obvious since they do not teach or suggest SEQ ID NO:2, do not teach or suggest epitopes on the malignin protein, and in particular do not teach or suggest SEQ ID NO:2 as an antigenic sequence or as an epitope on the malignin protein. Applicant respectfully requests the Examiner withdraw the rejection of claims 13 and 14 for double patenting.

Rejection of Claim 24—Double Patenting Over US 4,486,538

The Examiner has rejected claim 24 over claims 7-11, 20 and 21 of US 4,486,538 in view of US 4,041,146 for double patenting because “[c]laims 7-11, 20 and 21 of the ’538 patent are

directed to an antimalignin antibody with additional limitations.” Office Action at 5. Applicants have amended claim 24 and respectfully submit that the present claim amendments render this ground of rejection moot.

Applicant respectfully submits that claims 7-11, 20 and 21 of US 4,486,538 do not teach or suggest antibodies that specifically bind to SEQ ID NO:1 or SEQ ID NO:2 as claimed. Applicant further submits that the claims do not teach or suggest particular epitopes to the claimed anti-malignin antibody and provide no teaching or suggestion that SEQ ID NO:1 or SEQ ID NO:2 are antigenic. Applicant additionally submits that SEQ ID NO:1 and SEQ ID NO:2 were not known in the art before the priority date of the above-captioned application. As such, one of skill in the art would not find it obvious to even make an antibody to SEQ ID NO:1 or SEQ ID NO:2 and would not find it obvious to use such antibodies to determine the concentration of aglycoprotein 10B antigenic epitopes in the blood of a patient as claimed in claim 24. Because claim 24 would not have been obvious to one of skill in the art over claims 7-11, 20 and 21 of US 4,486,538 in view of US 4,041,146, Applicant respectfully requests the Examiner withdraw the rejection of claim 24 for double patenting.

Rejection of claims 13-15 and 27—Anticipation over US 4,486,538

The Examiner has rejected claims 13, 15 and 27 under 35 U.S.C. §102(b) for anticipation over US 4,486,538 to Bogoch. Applicant respectfully submits that the present claim amendments render this ground of rejection moot. Applicant is aware of no teaching or suggestion in US 4,486,538 of anti-malignin antibodies that bind to SEQ ID NO:2, as presently claimed in claim 13, or of a therapeutic composition comprising SEQ ID NO:1 or SEQ ID NO:2, as presently claimed in claim 15. Applicant respectfully submits that there is no teaching or suggestion that the anti-malignin antibodies disclosed in US 4,486,538 specifically recognize either of these sequences or that either of these sequences are useful as therapeutic agents to increase antimalignin antibodies, as required by the claims. Applicant additionally submits that SEQ ID NO:1 and SEQ ID NO:2 were not known in the art before the priority date of the above-captioned application. One of skill in the art could never have guessed or even surmised SEQ ID

NO:1 or SEQ ID NO:2 were epitopes of malignin based on the disclosure of US 4,486,538, which apparently contains no information and provides no suggestion of any particular epitopes within the disclosed malignin. Accordingly, applicant requests withdrawal of this ground of rejection.

Rejection of claims 13-15 and 24-27—Obviousness over US 4,486,538

The Examiner has rejected claims 13,15 and 24-27 under 35 U.S.C. §103(a) over US 4,486,538 to Bogoch in view of US 4,041,146 to Giaever. Applicant respectfully submits that the present claim amendments render this ground of rejection moot.

As discussed above, Applicant is aware of no teaching or suggestion in US 4,486,538 of anti-malignin antibodies that specifically bind to SEQ ID NO:1 or SEQ ID NO:2, as presently claimed in claim 13 and 15. In fact, Applicant submits that SEQ ID NO:1 and SEQ ID NO:2 are not disclosed in US 4,486,538 and there is no teaching or suggestion that the anti-malignin antibodies disclosed therein “specifically” recognize either sequence or that those sequences are individually antigenic or epitopes on the disclosed malignin protein. Applicant additionally submits that SEQ ID NO:1 and SEQ ID NO:2 were not known in the art before the priority date of the above-captioned application. One of skill in the art could never have guessed or even surmised SEQ ID NO:1 or SEQ ID NO:2 were epitopes of malignin to which antibodies could be directed. Further, US 4,486,538 apparently does not disclose SEQ ID NO:1 or SEQ ID NO:2, does not provide actual sequence information for the disclosed malignin protein, and does not suggest where the skilled artisan might find epitopes on the malignin protein. Accordingly, applicant requests withdrawal of this ground of rejection.

CONCLUSION

Applicant respectfully submits the claims are now in condition for allowance and earnestly solicit an early and favorable action on the merits. The Commissioner is authorized to charge any fees required in connection with this matter, to Kenyon & Kenyon LLP **Deposit Account No. 11-0600.**

The Examiner is invited to contact the undersigned to discuss any issues related to this application.

Respectfully submitted,

KENYON & KENYON LLP

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